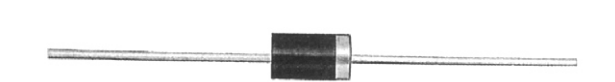
IN5820 thru IN5822

MINIATURE SCHOTTKY BARRIER RECTIFIER

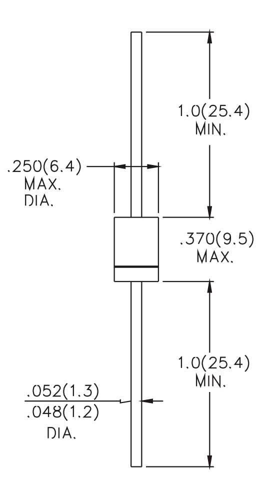


CHENG-YI
ELECTRONIC

VOLTAGE RANGE
20 TO 40 Volts
CURRENT
3.0 Amperes



DO-201AD



Dimensions in inches and (millimeters)

FEATURES

- Low switching noise
- Low forward voltage drop
- High current capability
- High switching capability
- High reliability
- High surge capability

MECHANICAL DATA

- Case:Molded plastic
- Epoxy:UL 94V-0 rate flame retardant
- Lead:MIL-STD-202 method 208 quaranteed
- Mounting position:Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATINGS (At T_A=25°C unless otherwise noted)

Ratings	Symbol	IN5820	IN5821	IN5822	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	40	Volts
Maximum Average Forward Rectified Current .375" (9.5mm) lead length at T_L=95°C	I_O	3.0			Amps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)T_L=75°C	I_{FSM}	80			Amps
Typical Thermal Resistance (Note 2)	$R\theta_{JC}$	28			°C / W
Typical Junction Capacitance (Note 3)	C_J	250			pF
Storage and Operating Temperature Range	T_{STG}	-65 to +125			°C

ELECTRICAL CHARACTERISTICS (At T_A=25°C unless otherwise noted)

Characteristics		Symbol	IN5820	IN5821	IN5822	UNITS
Maximum Instantaneous Forward Voltage at 3.0A DC		V_F	.475	.500	.525	Volts
Maximum Forward Voltage at 5.0A DC		V_F	.850	.900	.950	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage	@T_A=25°C	I_R	2.0			mAmps
	@T_C=100°C		2.0			mAmps

Notes : 1. Measured at Pulse Width 300 us, Duly Cycle 2%.
2. Thermal Resistance (Junction to Ambient): Verticaal PC Board Mounting, 0.5" (12.7mm) Lead Length.
3. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

IN5820 thru IN5822

MINIATURE SCHOTTKY BARRIER RECTIFIER



RATING AND CHARACTERISTICS CURVES
IN5820 THRU IN5822

Fig. 1 - FORWARD CURRENT DERATING CURVE

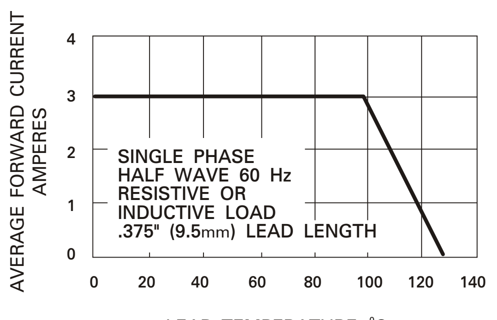


Fig. 2 - TYPICAL FORWARD CHARACTERISTICS

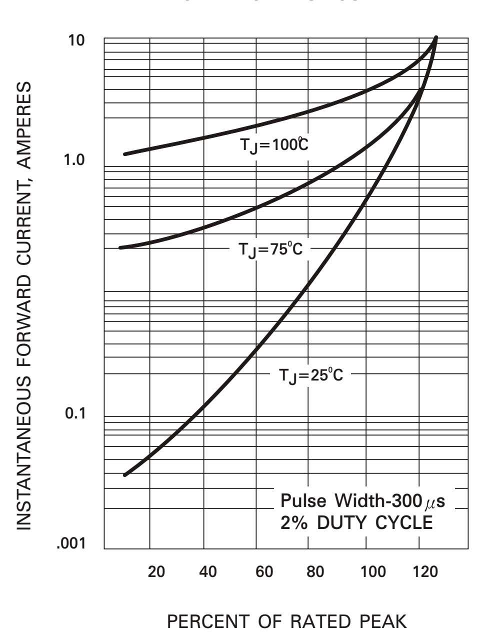


Fig. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

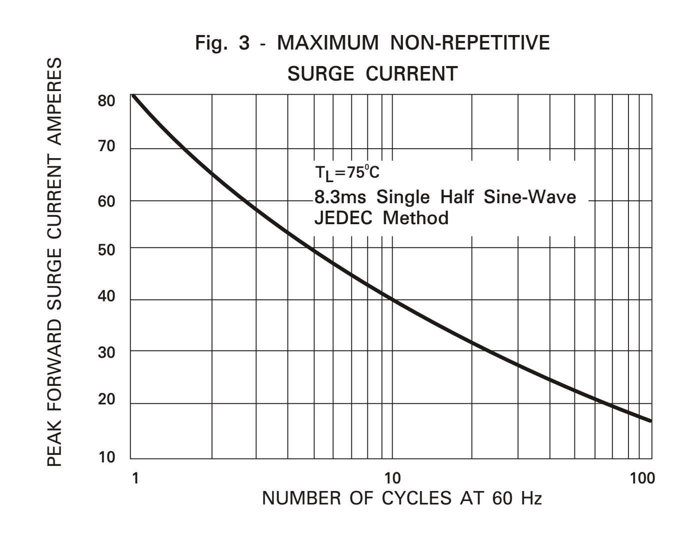


Fig. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

INSTANTANEOUS FORWARD CURRENT, AMPERES

20
10
1.0
0.1

1N5820
1N5821
1N5822

.2 .3 .4 .5 .6 .7 .8 .9

INSTANTANEOUS FORWARD VOLTAGE, (V)

Fig. 5 - TYPICAL JUNCTION CAPACITANCE

